

The integral role of **trees** in coffee systems coping with **Coffee** Wilt Disease

Sabine Nguyen Ba
G rard Fourny
Fabrice Pinard
Nicole Sibelet, Cirad



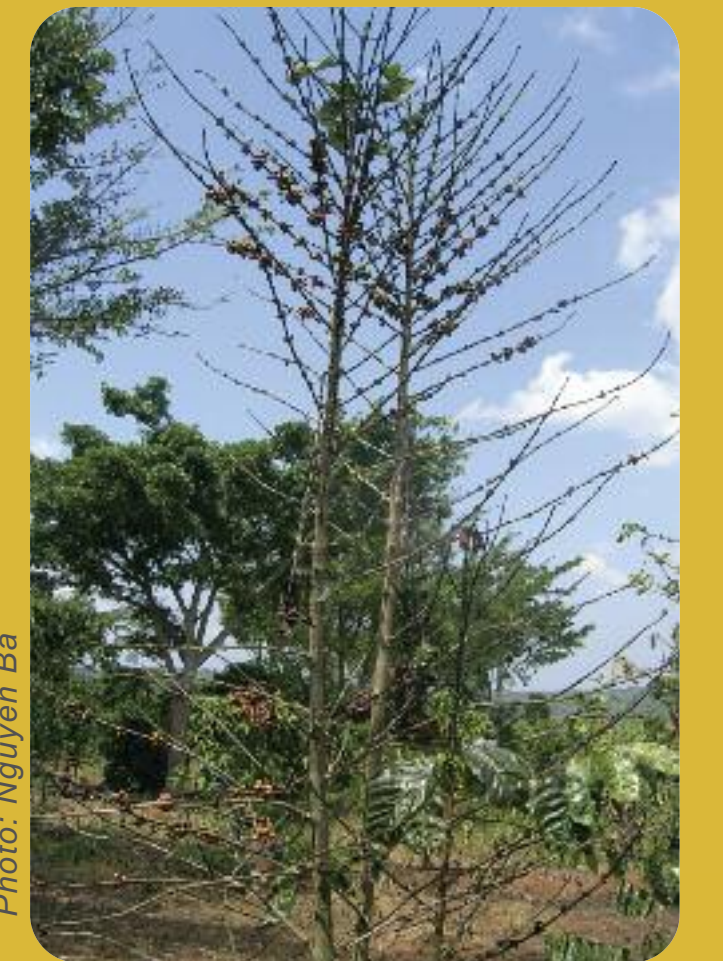
Case of smallholders in Mukono District, Uganda



For over 50 years, coffee production has dominated the Ugandan economy; this crop is the main source of cash revenue for farmers. This sector employs almost 10% of the total population: 3 million smallholders.

However, Coffee Wilt Disease (CWD) caused by *Fusarium xylarioides* has become a severe threat to coffee production. It has destroyed approximately 50% of Robusta coffee plants and affected nearly 90% of Ugandan farms.

At present, farmers are unable to permanently eradicate the disease from their farms. While waiting for disease-resistant varieties to become available, farmers replant coffee seedlings from their own farms although these new plants are not resistant to CWD.



CWD effects on coffee trees

Objective

In this context, and in accordance with the objectives of the 'Connecting, enhancing and sustaining environmental services and market values of coffee agro forestry in Central America, East Africa and India' (Cafnet) project, this paper aims to describe the role of trees within coffee farming systems.

Tree uses

In response to CWD, farmers have diversified their crops; however, they continue to maintain their shade trees in the hope of replanting new coffee trees.

When there is a surplus, food crops such as banana, maize, beans, sweet potato, fruit are sold.

However, no other crop provides as much cash revenue as coffee.

Farmers therefore are replanting coffee seedlings despite the plants' vulnerability to CWD.

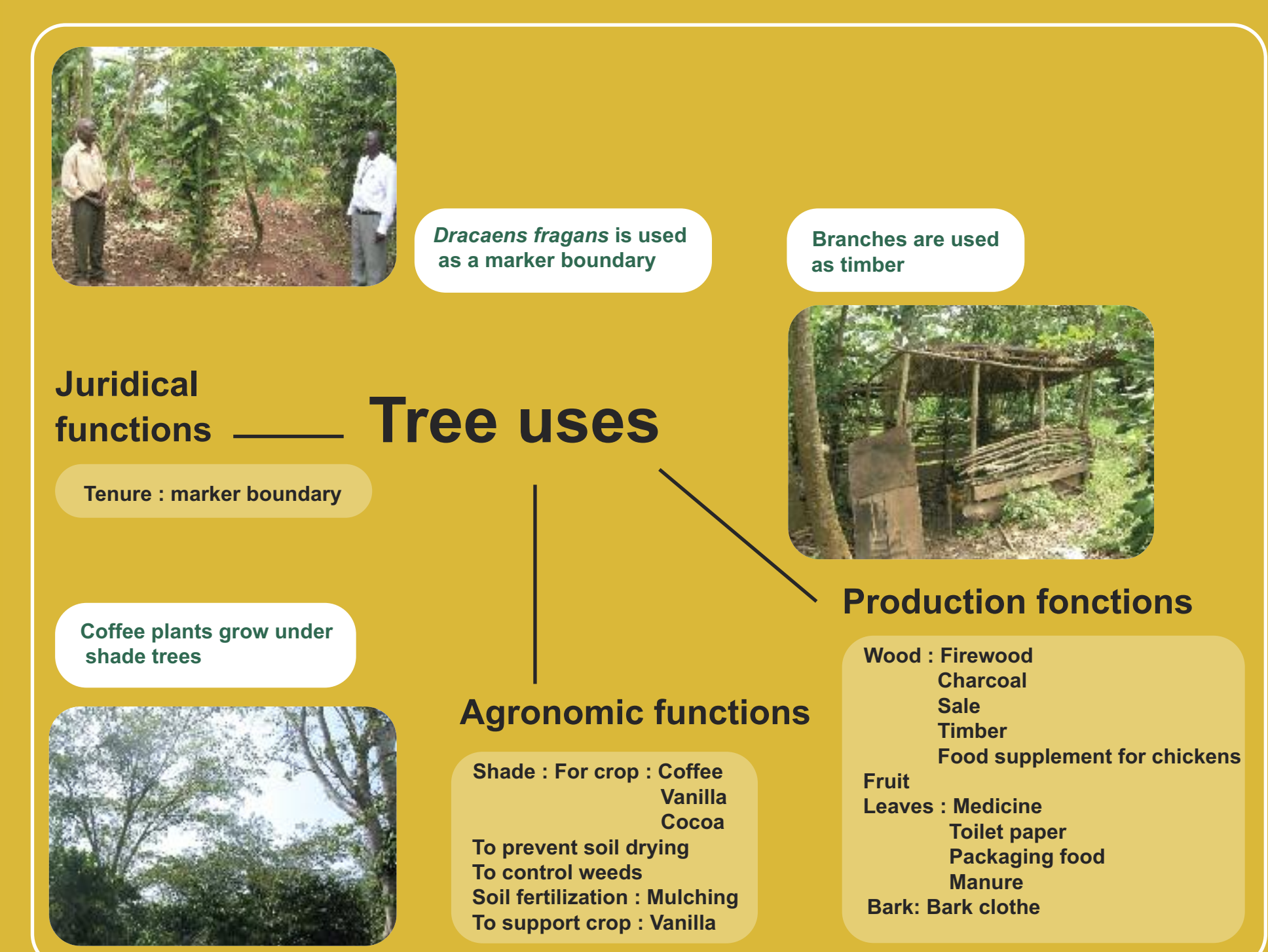


New coffee plants



Methods

Semi-structured interviews of 47 farmers and 20 local coffee experts were conducted. The survey was carried out over six months in 2008 in Mukono District, the leading coffee production area in the country.



Ficus, Albizzia and fruit trees are planted purposely by farmers to obtain shade, firewood, and fruit. Other trees such as *Markhamia lutea* and *Meopsis eminiis* grow naturally in their gardens.



Trees in farming system



Coffee fields under shade trees

Farmers maintain trees on their farms even though these trees are not considered to be valuable sources of cash.

There is a close link between trees and coffee: farmers acknowledge selling more products from trees such as fruit and firewood since the appearance of CWD.

Agroforestry systems provide socio-economic resilience during crisis periods.

Partners

NUCAFE (National Union of Coffee Agribusinesses and Farm Enterprises)

ICRAF (World Agroforestry Center)

CIRAD (Centre de coop ration Internationale en Recherche Agronomique pour le D veloppement)